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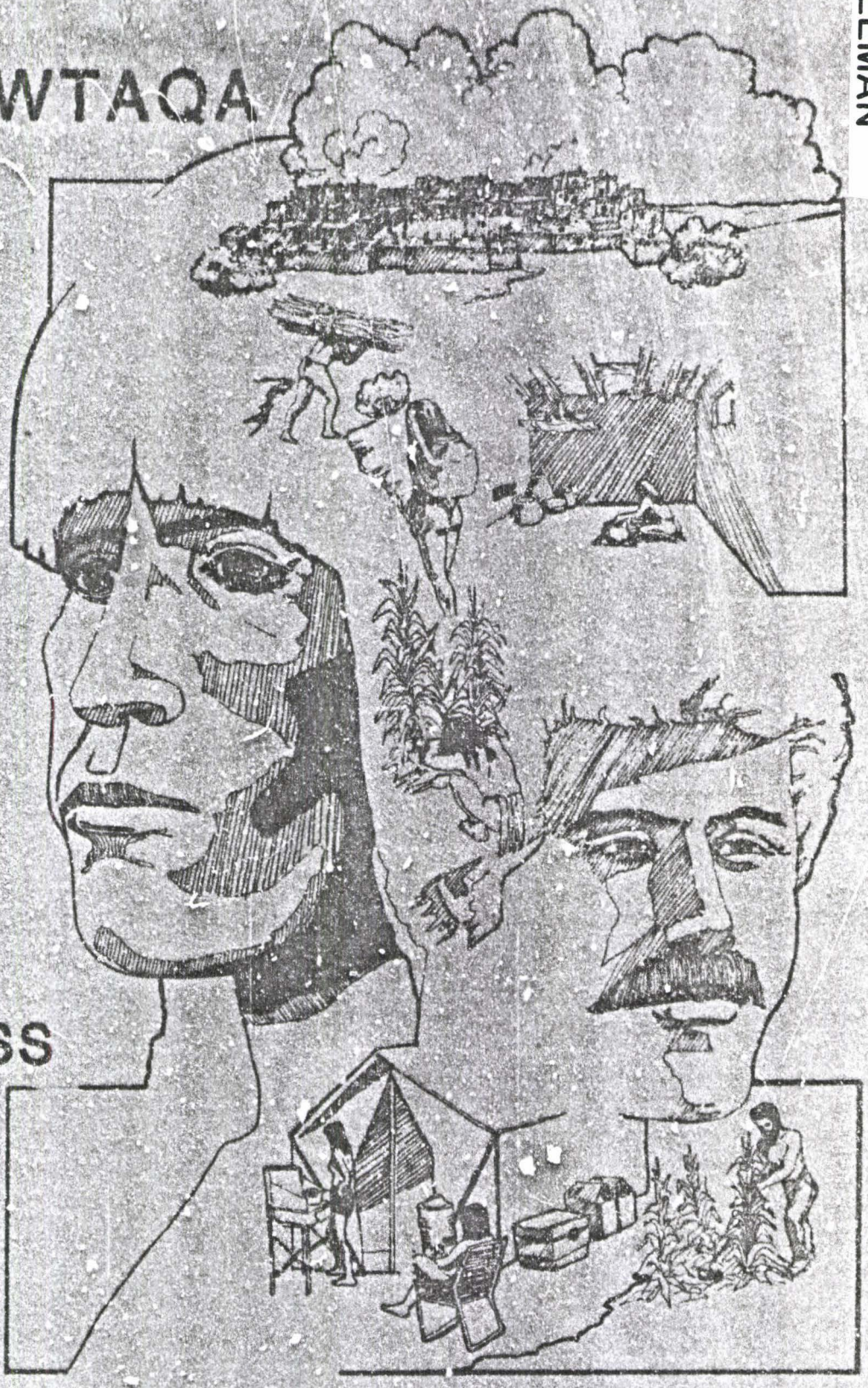

in

CHAVEZ PASS

AN INTERPRETIVE PROSPECTUS

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U S DEPARTMENT OF AGRICULTURE FOREST SERVICE COCONINO NATIONAL FOREST

AN INTERPRETIVE CONCEPT FOR

NUVAKWEWTAQA RUINS

IN CHAVEZ PASS

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Prepared for:

U.S. Forest Serice
Recreation Training Short Course
Clemson University
Clemson, South Carolina

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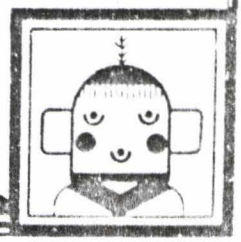
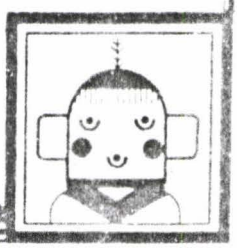


INTRODUCTION

Hahai-i Wu-uti is the mother of all kachinas and is a principal personage in the Water Serpent ceremony. The ruins of Nuvakwewtaqa are associated with the Water Clan, which is responsible for this ceremony.

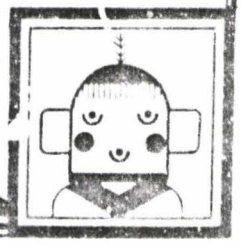


INTRODUCTION

In recent years, the rapid destruction of our nation's heritage by vandals and pot hunters has emphasized the need to protect archeological sites on public lands. This escalation of vandalism has been caused by a number of factors, not the least of which has been a growing interest in the American Indian, archeology, Indian artifacts and the growing popularity of archeology as a recreational pursuit. These trends in American life have created a need to develop the public's appreciation and understanding of archeological resoures and the goals of archeology, as well as a need to provide opportunities for the public to participate and learn about archeology and Native American cultures. Federal responsibilities to promote such opportunities are mandated by several laws, rules and regulations, particularly the Archeological Resources Protection Act of 1979, which calls for greater public involvement in the practice of archeology and the cooperation of federal agencies to achieve this goal.

As a response to these new directions, this report discusses concepts for the development of Nuvakwewtaqa (pronounced "Noo vah' kway o tahka") Ruins in Chavez Pass, Coconino National Forest, for recreation, interpretation and educational opportunities. The goal of this concept is to provide the public with a unique recreational experience while obtaining an appreciation and understanding of archeology, the Nuvakwewtaqa Ruins and Hopi Indian culture.

The ruins of Nuvakwewtaqa, found in Chavez Pass, are the largest and most significant archeological sites on the Coconino National Forest. They are also among the most important sites in the state and the nation, as evidenced by their being listed in the National Register of Historic Places. The Nuvakwewtaqa Archeological District contains well over 150 sites spread over three to four square miles (Fig. 1). At the core of this prehistoric town are three very large, multi-story ruins, each comparable in size to the modern pueblos of Taos, Walpi or Oraibi. The ruins of Nuvakwewtaqa have been chosen as the focus of this



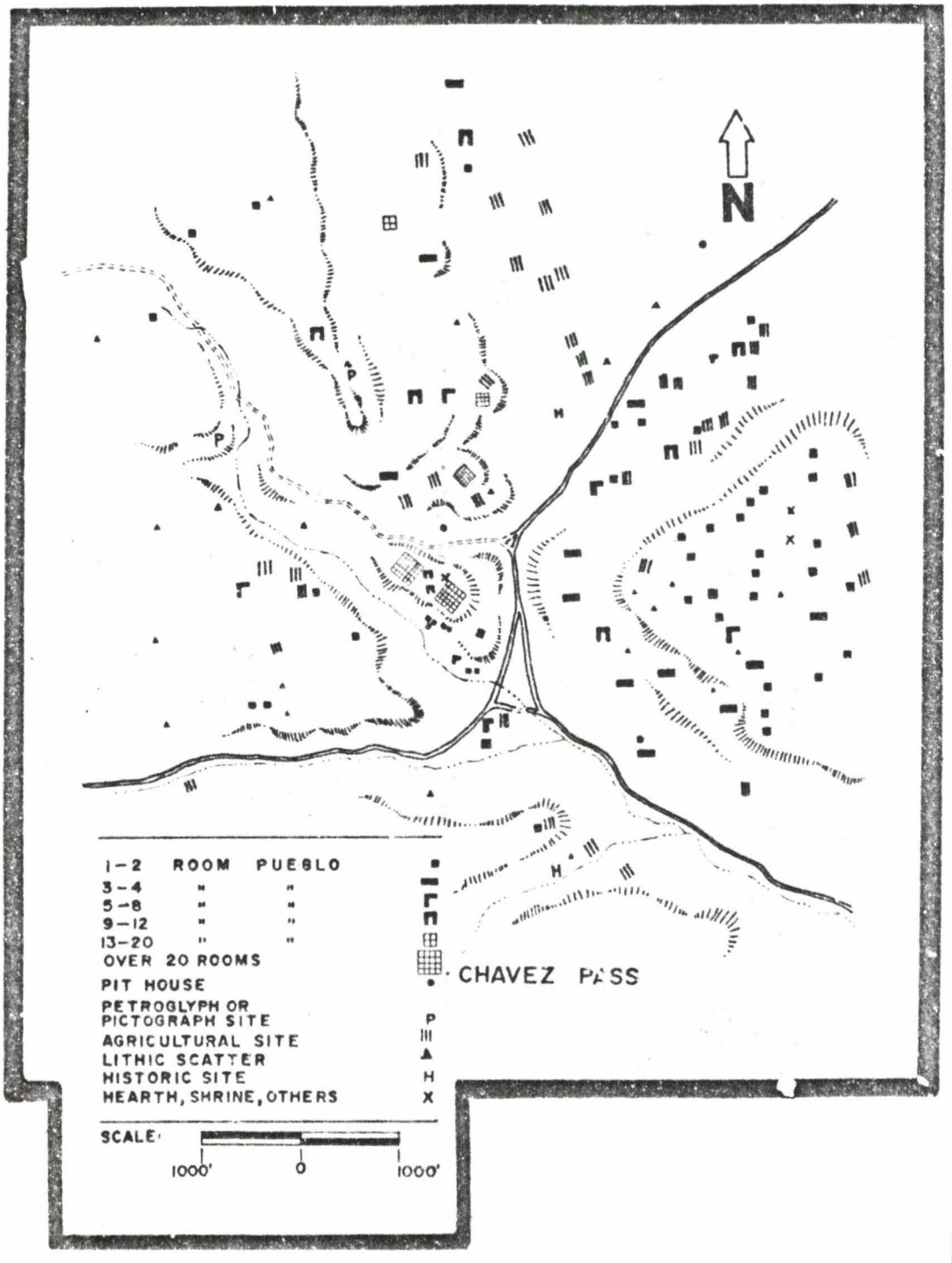


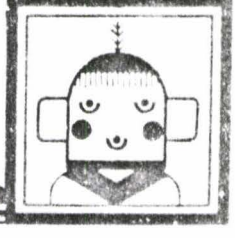
Figure 1. Map of archeological sites in the main site area.

interpretation concept because of the spectacular location in which they are located, their impressive size and archeological complexity, their role in the development of Hopi culture, their potential for complementing other regional archeological interpretive plans and the ability of the Chavez Pass area for interpreting man's use of the land for over 1,000 years.

The unique recreational experience we propose will be acquired through traditional interpretive techniques and by making use of innovative "hands on" activities in Participatory Archeology and Living Archeology programs. Under these programs, families and individuals would make advance registration and pay a fee to participate in one or two week long programs. They would have the opportunity to camp and participate in archeological field surveys, excavations, laboratory work and analysis of information. By participating in actual archeological work, the public would learn about archeological techniques and the importance of preserving archeological sites for future generations. They would also have the choice of living in a stabilized prehistoric ruin and learning the crafts and daily activities of prehistoric people - taught to them by the modern Hopi Indians, the descendants of the people who lived in the ruins. By experiencing the technology and accomplishments of prehistoric people, visitors would better appreciate the values and contributions of early people to modern times. This also provides an excellent way to compare and contrast prehistoric land uses with modern multiple-use concepts to illustrate basic relationships between man and his environment.

Besides serving as instructors to Living Archeology Program participants, Hopi would also serve as interpreters for other aspects of the development. In this way, we provide an opportunity to bring Hopi and non-Indian people together to promote an appreciation and understanding of other cultural values.

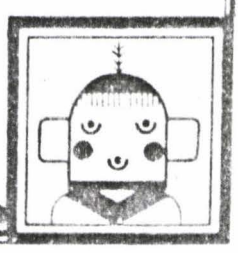
Day use visitation would also be encouraged but would constitute a lower level of involvement than that of the program participants. By observing participants and the interpretation



activities, the day visitor would be stimulated to return for longer periods of time to learn more about the area and the program.

Such an interpretive program is complex because of the unique combination of concepts and activities under consideration. At this time, the Forest is only in the first planning stage of the concept. Initial studies have indicated a complex relationship between the many facets of the concept and their potential impacts on the environment and existing uses of the Chavez Pass area. It is clear that considerable additional planning must be done before any aspect of this concept can actually be implemented. To this end, the Forest is preparing an Environmental Analysis Report to secure additional planning funds for Fiscal Year 1984. Consultations are presently being conducted with local ranchers, the Hopi Tribe, the Arizona Game and Fish Department and numerous other groups to better understand issues and concerns associated with the concept. As planning continues, all efforts will be made to minimize impacts to these groups. Consequently, it must be understood that the size, nature and location of facilities and interpretive programs discussed in this document are only conceptual in nature and are subject to considerable change.

This prospectus is an integral guide to the development of the archeological district for the recreation and education of the user. It will be limited to general concepts and will not deal with daily schedules, staffing requirements etc. in detail. Emphasis will be placed on themes to be interpreted, the type of facilities needed, identification of the user audience and interpretive techniques for these audiences.



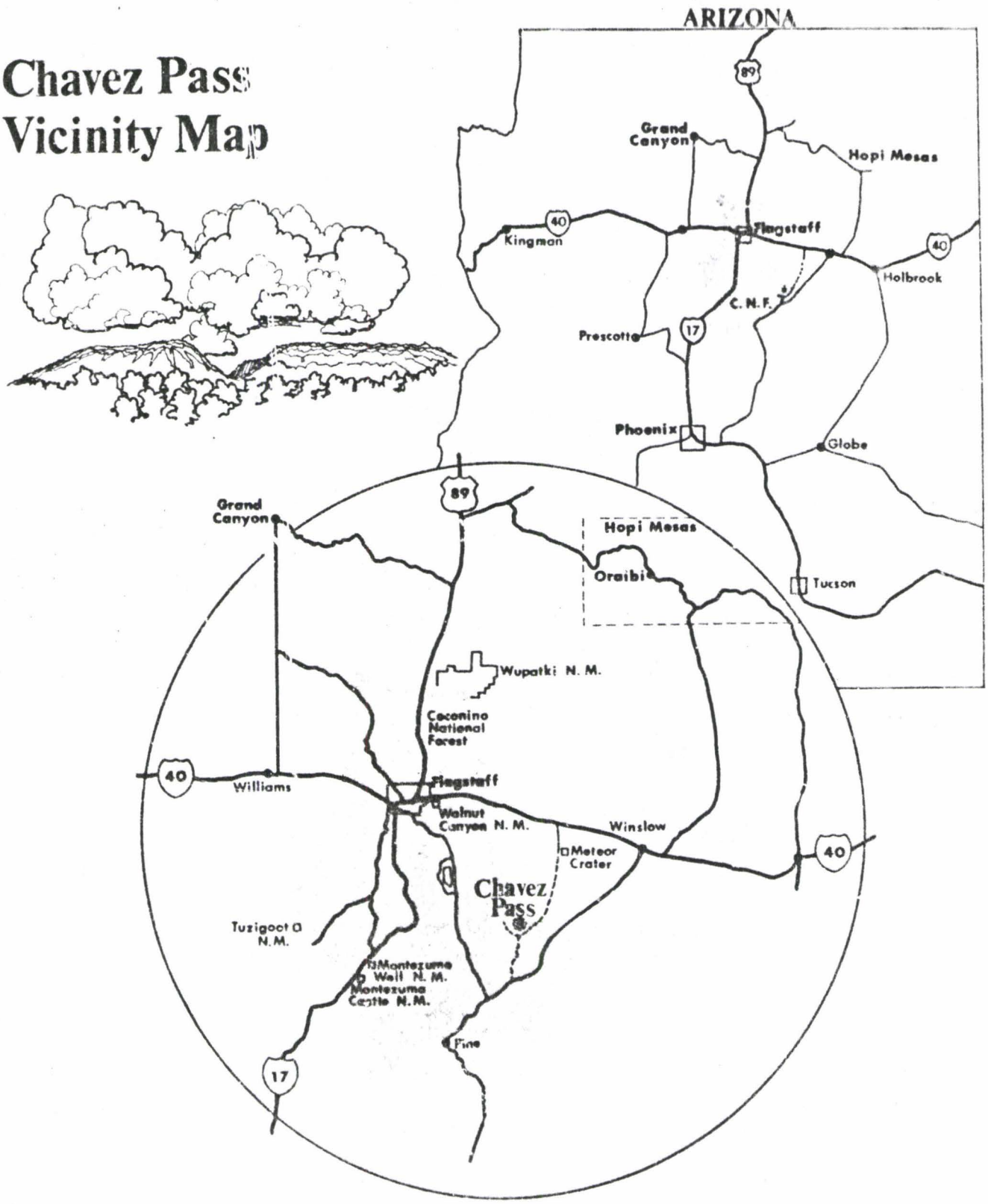


Figure 2. Location of Chavez Pass and Nuvakwewtaqa Ruins.

THE NATURAL AND CULTURAL BACKGROUND

The Environmental Setting

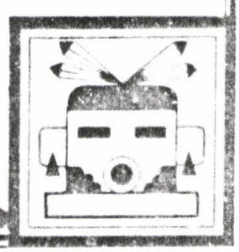
Location
The Environment

Prehistory of the Chavez Pass Archeological District

A.D. 600 to 1450
Hopi History and Nuvakwewtaqa

History

Rugan, a rasp kachina, bears the terraced cloud symbol designs on his mask. Clouds are one of several water symbols associated with the Water Clan and the Nuvakwewtaqa area.



THE ENVIRONMENTAL SETTING

Location

The ruins of Nuvakwewtaqa are located about 43 miles southeast of Flagstaff, Arizona on the Coconino National Forest (Fig. 2). Metropolitan centers, such as Phoenix and Tucson, as well as major towns, including Flagstaff and Winslow, are within a one to six hours drive from the site. Transportation to these places is provided by rail, bus and airplane, in addition to easy access by passenger car over major highways.

Many places of national interest and visitation are within 100 miles of Chavez Pass. Meteor Crater, the Hopi Mesas, the Navajo Reservation, Tonto Natural Bridge, Petrified Forest National Park, the Painted Desert, and Walnut Canyon, Sunset Crater and Wupatki National Monuments are only a few hours drive away.

The Environment

The Nuvakwewtaqa Ruins lie within the pinyon-juniper woodland type near the transition of this type and natural grassland. The area is semi-arid, receiving 8 to 12 inches of precipitation annually. Existing access is by rough dirt road and current visitation is limited to tourists, fishermen, ranchers and pot hunters. Chavez Pass, in which Nuvakwewtaqa Ruins is situated, is a natural corridor through Anderson Mesa and provides easy access between the pinyon-juniper woodland, ponderosa pine-pinyon-juniper transition and spacious grasslands. Topography above and below Anderson Mesa is flat, while the north side of the mesa is cut by steep and rugged canyons. Soils are heavy in clay, of moderate depth and are agriculturally productive when adequately watered. These rocky soils are mostly derived from basalt flows that cap the underlying limestone and sandstone layers. These picturesque remnants of ocean bottoms and giant petrified sand dunes can be seen in several of the larger canyons where they have been exposed by erosion.

From the north ruin, a panoramic vista of mountains and deserts can be seen (Fig. 3). From here, the western flank of Anderson Mesa stretches into the distance, while Meteor Crater and Sunset Buttes break the monotony of the Moenkopi Plains to the north and east. Further north, the jagged volcanic remnants of the Hopi Buttes form a skyline on the horizon. The best vantage point to see the large ruins and the Pass itself (Frontispiece and Fig. 4) is the rim of Chavez Mountain, which forms the east side of the Pass.

The Chavez Pass area has historically been important as a wintering area for wildlife. Large herds of elk, deer and antelope move through the Pass during the winter to gain pasturage in the grasslands to the north and east. Small nongame species also abound in the area. Several thousand cattle are moved through the Pass each year in the early spring and late fall. Coordinating these cattle drives with proposed recreational uses is an important factor in the complex planning job of the Chavez Pass concept. Because of its prehistoric, historic and modern use as a natural trail route, interpretation possibilities exist for comparing animal, prehistoric man and modern man's similar uses of the area.

The environment in Chavez Pass offers a unique opportunity to compare prehistoric man's ability to cope with the harsh climatic extremes of the Southwest with today's energy efficient technology. Continuity of man's desire to live in harmony with the environment can also be demonstrated. Soils are deep and would allow earth sheltered facilities to be constructed. Sunshine during most of the year is adequate for the use of passive solar design for heating and wind through the Pass is sufficient to be tapped for other energy needs.

PREHISTORY OF THE NUVAKWEWTAQA ARCHEOLOGICAL DISTRICT

A.D. 600 to 1450

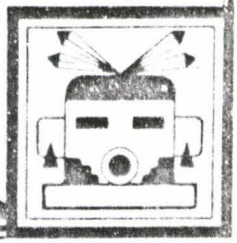
People first settled in the Chavez Pass region about A.D. 600,

when several pit house villages were established by people of the Anasazi region to the north, perhaps from the Winslow area. This was not a mass migration, but was simply the beginning of a population expansion from other regions into the Chavez Pass area. The Little Colorado River area near Winslow remained the major center of regional activities at this time. Sites were randomly distributed throughout the region and no patterning in their location is evident. Populations were small and only a few pit houses or rooms are evident at each site. Subsistence was probably oriented to wild food resources, although agriculture was practiced. Site density at this time was about one site per square mile.

By A.D. 1000, the Anasazi were joined or replaced by people of the Sinagua cultural tradition. Site sizes and types remain the same; however, increased emphasis was placed on agriculture for food. Population increased until there was a density of about five sites per square mile. Trade with other groups is indicated by pottery from the Anasazi region to the north. Local pottery was restricted to plain, undecorated brownwares.

The period from A.D. 1000-1150 was one of rapid growth, peaking at 24 sites per square mile. Two periods of population growth seem apparent: one about A.D. 1035 by a small number of people, and one about A.D. 1140 by larger groups. Considerable occupation was evident on the edge and flanks of Anderson Mesa, but the grasslands to the north and east were not used for settlement. A broader range of activities is indicated by an increase in the range of artifacts as well as site size. The average site consisted of five rooms or pit houses, although sites as large as 25 rooms were present. Agriculture became dominant over hunting and gathering since field houses and terraced field systems occur regularly.

Research is presently being conducted to determine why this shift occurred - was it because additional food was needed to support a growing population, or did improved agricultural technology permit the population to grow? It is also not certain whether this technology came with the people who settled the area or if it developed locally.



Sites were randomly distributed until about A.D. 1150, when two clusters developed: one at Chavez Pass and the other about six miles to the northwest in the area of the Pollock Site, another large pueblo partly contemporaneous with Nuvakwewtaqa. This is thought to indicate an important change in the social organization of the people, a change from the independent rule of each village, probably along family lines, to one in which certain villages became authority centers. The new settlement pattern consisted of a number of sites clustering around a larger central site. Paralleling this change was the development of more formalized exchange patterns within the locality as well as with other regions.

The period between A.D. 1150-1250 was one of population movement from the dispersed settlements of earlier times to the Pollock Site and Chavez Pass areas. Sites became less numerous as more people began to assemble in individual pueblos that averaged about ten rooms per site. Major activity at this time was the beginning of the Pollock Site and the founding of the north ruin at Nuvakwewtaqa. These sites were definitely important centers and were administrative focal points. Secondary controls were probably located at various smaller pueblos in the area around these main pueblos.

By A.D. 1300, virtually the entire population of the region was living in large pueblos located at Nuvakwewtaqa (Fig. 4), Kinnikinick Pueblo and Grapevine Pueblo, the latter two sites located eight miles northwest of Nuvakwewtaqa. The rise of these large sites reflects the increased centralization of administrative control at these pueblos, a process illustrated by exceptionally large rooms at these sites, called community rooms, that are thought to have been meeting places for people of different villages, clans and societies. Of these major centers, Nuvakwewtaqa appears to have been pre-eminent. Specialized sites connected with the growing of crops, terraced field systems and field houses, are extremely numerous and indicate a substantial population was being served. Some archeologists suggest all available land was needed in order to grow food to support the large population and that this aided the concentration into the main pueblos. Other archeologists believe people lived in

these widely dispersed field houses on a yearly basis, suggesting an even larger population in the area.

Major changes are apparent during this time period. The administrative hierarchies evident in earlier centuries became more complex and elaborate. Increased specialization of rulers, craftsmen and religious leaders seems likely. With this, the emergence of Nuvakwewtaqa as a major regional trade center is evident. Exotic materials from outside the region occur in some frequency and pottery indicates intensive trading relationships with many different groups, particularly those in the Winslow, Hopi Mesa and eastern Arizona areas. Artifacts such as shell ornaments (Fig. 5), parrots, turquoise (Fig. 6) and copper bells illustrate this trade system was extremely far-ranging, extending as far as the California coast, northern Mexico and southwestern New Mexico. It is believed that several trade routes converged on Chavez Pass and that Nuvakwewtaqa played a key role in the distribution of goods throughout the Southwest. A large oval depression, called a ball court (Fig. 4), is located at Nuvakwewtaqa. Recent investigations suggest ball courts were only present at those sites that were major regional trade centers.

These economic relationships were likely strengthened with the development of clans, societies and the kachina cult - organizational systems that were shared by many of the different cultural groups participating in this extensive interaction pattern. The development of the kachina cult marks a major point in the history of the Southwest. Its longevity and importance is reflected by the fact that many of the kachina masks painted on pottery at this time can still be identified by the Hopi and these kachinas remain important to modern pueblo societies today. It has been suggested that the kachina cult, certain pottery styles and religious concepts were the result of intensive contact with Mexico.

A very sophisticated technology for manipulating the environment in order to grow crops is evident. Almost every square

foot of ground available for farming was used and entire hillsides were terraced to create even more land for cultivation. Lines of rocks were used to divert slope runoff into certain drainages and even ditches. Water was also directed into storage reservoirs for domestic water sources as well as over a series of natural benches to irrigate additional fields.

Check dams were built across washes to retard water flow from washing out pueblos and fields located downslope. Smaller pueblos in the immediate vicinity of the large ruins at Nuvakwewtaqa may have been responsible for water distribution. A unique feature at Nuvakwewtaqa, rarely found in Southwestern sites, is a long stone stairway that runs from the large pueblos to a spring below the site (Fig. 4).

The intensity and complexity of activities being undertaken has led some archeologists to believe that the organizational system at that time was more elaborate and sophisticated than that of the Hopi when they were first encountered by the Spanish in the 1500's. This is a very controversial concept that will need to be resolved by future work and discussion by the archeological profession.

For reasons that are still not completely understood, the large pueblos were abandoned by about A.D. 1450. Drought, disease and warfare are some of the possible causes, although it is becoming more apparent that a break-up of the elaborate trade system and the institutions that developed around trade was also a major factor.

After A.D. 1450, it appears that the people of Chavez Pass moved to the Homolovi group of ruins in the Winslow area and to other large pueblos in the eastern part of the state. Hence, the modern day Hopi and perhaps the Zuni are descended from the inhabitants of Nuvakwewtaqa.

Hopi History and Nuvakwewtaqa

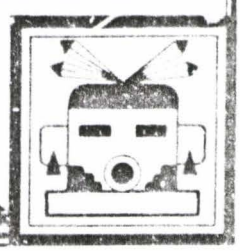
Modern Hopi believe several of their clans passed through the

Anderson Mesa area and lived at the ruins in Chavez Pass. Most interestingly, archeological data supports some aspects of Hopi migration myths, such as a southern origin for these clans. Their legends refer to the general Anderson Mesa area as Nuvakwewtaqa (the Snow Belt) and the Hopi prefer the ruins to be called by this name. Specific legends about the ruins of Nuvakwewtaqa have not yet been provided by the Hopi. However, after visiting the ruins, Hopi elders are certain these sites are a direct part of their history and archeologists agree that they played an important role in the development of Hopi culture. Hopi style pottery is found at the site, kachina masks are found on the pottery and rock art of the area and several shrines have been identified that correspond to typical Hopi shrines in their construction and location. Rectangular kivas similar to those found in Hopi sites have also been identified at Nuvakwewtaqa (Fig. 7).

The pass itself has long been recognized by the Hopi as a major landmark along one of their trails and is called Chubkwitacalobi (Antelope Pass). This trail ran from the Hopi Mesas to Winslow, through Sunset Pass, Chavez Pass, past Stoneman Lake and into the Verde Valley. It is the route the Hopi used when they led the Spanish explorer Antonio de Espejo into the Verde Valley in 1583 and at that time they said the trail was "very old" (Colton 1964). Archeological work confirms this and suggests the trail and the pueblos located in the pass were important to prehistoric travel and trade. This route was also destined to play an important role in the history of the state, since it was later developed into a major road that served the Arizona Territory for many years.

HISTORY

Chavez Pass was named after Col. J. Francisco Chavez, one of the New Mexico Cavalry Volunteers. A member of a prominent New Mexico family, Chavez was educated in St. Louis and commissioned in 1861 by President Lincoln to be Commander of the 1st New Mexico Infantry. During this time he served in several campaigns against the Navajo and helped establish Fort Wingate, which he commanded for many years.



In 1863, following the establishment of the Arizona Territory, he commanded the military escort for the first governor's party. Part of his assignment was to locate a road between Santa Fe and the new Territorial capitol at Prescott (Barnes 1960). As was the case three hundred years earlier, this task was accomplished with the help of Hopi Indians, who led him along their ancient trail to the Verde Valley. This route later became known as the Chavez Road.

Chavez returned to New Mexico and was elected to Congress in 1865. He continued to serve in New Mexico governmental offices where he wielded considerable authority until his assassination in 1904.

Traces of the Chavez Road are still evident in Chavez Pass, although most of it has been erased by later road construction. At one time there was a way station in the Pass, although no trace of it remains. Stories abound in the area about murders, robberies of military payrolls and Indian attacks that occurred in Chavez Pass and, in fact, several graves have been recognized near the present road.

The ruins were unknown to the scientific community until 1896, when Jesse Walter Fewkes, of the Smithsonian Institution, reported them as part of his work done that year in northern Arizona. Fewkes hired a crew from Winslow and spent several weeks excavating the burial grounds of Chavez Pass and other large sites near Winslow such as the Chevelon Ruin and the Homolovi group (Fewkes 1898).

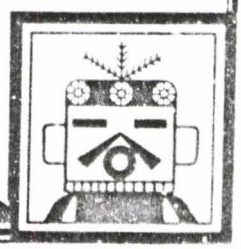
THE PRESENT SITUATION

The Current Program

Hopi Consultation

Interpretive Activities of Nearby Agencies

Navan Kachina, the Velvet Shirt Kachina, is said to have been introduced from the Zuni Indians. Certain similarities with the Zuni area are found at Nuvakwewtaqa.



Other than occasional visitation by the general public, archeologists and looting of the site by pot hunters, there has been no formal program or activity at the ruins until recently. In 1977, Arizona State University began a program of work at the site at the request of the Coconino National Forest, following a particularly severe period of pot hunting. At that time, it was evident that unless some attention was given to the ruins, they would be quickly destroyed by pot hunters. The University's project began by cleaning out potholes and collecting the remnants of human skeletal material that had been strewn over the site by pot hunters. A surface collection of potsherds and stone artifacts was also made to gather information about cultural relationships and the possible age of the site.

As a result, the tremendous research potential of the area became apparent and the University developed an interest in continuing work at the site. After spending over 2,500 person days of work conducting investigations in the archeological district, they applied for and received a $110,000 grant from the National Science Foundation to support several years of survey and excavation work (Fig. 8). Their research is divided into two major operations, archeological survey and excavation, oriented towards understanding the growth, development and abandonment of the large ruins. Other questions focus on the importance of the site as a regional trade center and the social organization of its inhabitants. Exciting and innovative ideas about the prehistory of northern Arizona have resulted from this work. Many of these ideas are not fully accepted by the archeological profession, but these concepts are being widely discussed and are attracting national attention. Additional research and testing is needed before the validity and full implication of these concepts will be realized.

The early work of Fewkes was only minimally reported and was primarily a description of the artifacts he recovered. In order to understand his findings as they relate to new classifications and the ideas being investigated at the site, a special trip was

made to the Smithsonian Institution to study and photograph his collection (Fig. 9 and 10). New insights and ideas were obtained as a result of this study that have proven valuable for augmenting the findings of more recent work.

In order to understand the growth and land use patterns of the large ruins, the archeological survey has been constructed into three phases: the first phase consisted of an intensive survey of the area within a one mile radius of the main ruins. Over 147 sites were recorded in this phase of work (Fig. 1). The second phase was a 0.5 to 3 percent sample of the region within a seven mile radius of the Pass. The third phase was an intensive survey of selected areas found to be interesting during the sample phase. A total of 124 sites were recorded during these sample surveys.

Unlike other excavation projects on large ruins, work has not been oriented towards unearthing numerous rooms and burials. In the past, such efforts have seldom been adequately reported or published. To avoid this pitfall, excavations have been designed to recover maximal information from minimal work. This has primarily been a testing program to determine the depth of site, the quantity of artifacts that can be expected in various areas of the site and specific information about the growth and temporal relationships of the main ruins. Soil samples taken from trench profiles and room floors are being analyzed for pollen content in order to determine the uses of the rooms, the prehistoric environment and to understand climatic fluctuations during the period of occupation.

Some of the motivation behind the present concept has developed during the course of Arizona State Univerity's work as the archeological community, the Hopi Tribe and amateur archeologists across the state began expressing interest in the work that was going on at the site. This interest has grown into some of the formative stages of the proposed concept since organized groups of amateur archeologists from the Arizona Archaeological Society now work each summer to receive experience and training in archeological field work. Amateurs excavate areas

of the site under the direction of University archeologists and graduate students. Informal discussions about archeology and the work at the site are done around the campfires at night.

This summer program essentially provides "participation" to students and archeology hobbyists. Their experience confirms a willingness on the part of visitors to sacrifice amenities for a participatory learning experience of the sort we envision. These groups also provide protection to the site from the frequent vandals who are destroying the site and stealing its artifacts for commercial gain.

During the summer and other parts of the year, tours are given of the site and the field excavation project to various groups. These tours are organized and conducted by the Arizona Archaeological Society, the University, the Hopi Tribe and the Forest. Each year, aproximately a dozen tours are made of the site, exposing about 500 people to the archeology and interpretive possibilities of the area.

HOPI CONSULTATION

As the concept for developing an interpretive facility at Chavez Pass grew, contacts were initiated with the Hopi Tribe to enlist their suggestions and assistance in developing future plans for the area. Numerous meetings were held on the Hopi Mesas, a presentation was made before the Tribal Council and several tours of the sites were given to Hopi elders and Tribal Council members. Preliminary planning sessions were also attended by the Hopi to further develop the interpretation concept discussed in this document. The result of these consultations has been that the Hopi people support the scientific investigation of their ancestral site and its development for public education and recreation purposes. Their willingness to assist the Forest Service is indicated by Hopi Tribal Resoultion H-16-80 that was unanimously passed by the Tribal Council in support of these concepts (Fig. 11).

HOPI TRIBE
RESOLUTION
H-16-80

WHEREAS, the Coconino National Forest is interested in developing Chavez Pass ruins as a U.S. Forest Service Interpretive Site; and

WHEREAS, representatives of the Coconino National Forest and the Museum of Northern Arizona have met with clan leaders of both First and Second Mesas on this matter; and

WHEREAS, both village representatives agree that the development of Chavez Pass ruins will preserve and record archaeological information for the educational benefit of the Hopi Tribe and the public; and

WHEREAS, the Hopi Museum Board also agrees that this development will bring forth a clearer picture of clan migrations from that area; and

WHEREAS, the proposed development will provide an opportunity to explain the Hopi way of life to the public; and

WHEREAS, it is the desire of the Hopi Tribe to change the name of the ruins to an appropriate Hopi name to distinctly identify the ruins as a Hopi monument.

NOW THEREFORE BE IT RESOLVED by the Hopi Tribal Council that the name, Chavez Pass ruins are hereby petitioned to be changed to the Hopi name of Nuva-queo-ohka and are hereby collectively recognized as a Hopi monument.

BE IT FURTHER RESOLVED that the Hopi Tribal Council hereby gives its approval for the excavation and development of the

Hopi Tribe
RESOLUTION
H-16-80

Chavez Pass ruins as a U.S. Forest Service Interpretive Site which is in the best interest of the Hopi Tribe.

BE IT FURTHER RESOLVED that the Chairman or his designee be and he is hereby authorized and directed to enter into a Memorandum of Understanding with the Coconino National Forest and Arizona State University for the excavation and development of said ruins.

C E R T I F I C A T I O N

The foregoing resolution was duly adopted by the Hopi Tribal Council on January 18. 1980, at a meeting at which a quorum was present with a vote of 12 in favor, 0 opposed, 0 abstaining (Vice-Chairman presiding and not voting) pursuant to the authority vested in the Hopi Tribal Council by Section 1(a) of Article VI of the Hopi Tribal Constitution and By-Laws of the Hopi Tribe of Arizona, ratified by the Hopi Tribal Council on October 24, 1936 and approved by the Secretary of Interior on December 19, 1936, pursuant to Section 16 of the Act of June 18, 1934. Said resolution is effective as of the date of adoption and does not require Secretarial approval.

Stanley Honanie
Stanley Honanie, Vice-Chairman
Hopi Tribal Council

ATTEST:

Kedric L. Outah
Kedric L. Outah, Secretary
Hopi Tribal Council

Figure 11. Hopi Tribal Resolution approving excavation and development of Nuvakwewtaqa Ruins

INTERPRETIVE ACTIVITIES OF NEARBY AGENCIES

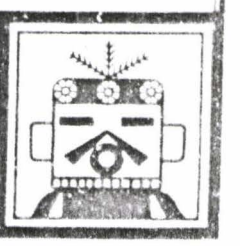
About 26 miles northwest of Nuvakwewtaqa is the town of Winslow and another group of large pueblo ruins - the Homolovi group and the Chevelon Ruin. Of these five ruins, one is administered by the Bureau of Land Management, three by the State of Arizona and one is privately owned. All are linked by the Hopi as part of the clan migrations from Nuvakwewtaqa. Two of these ruins and the area around them have recently been studied by the Museum of Northern Arizona through funds provided by the Arizona State Historic Preservation Officer and the Bureau of Land Management. The Bureau of Land Management is preparing a management plan oriented towards stabilization and interpretation for its ruin and the State is authorizing similar studies to determine preservation and development options for those sites on State land. These efforts and the Chavez Pass concept are being coordinated by the agencies, the town of Winslow and the Hopi Tribe through a working group assembled at the request of the Governor of Arizona.

To stimulate the town's economy through tourism, Winslow is developing a cultural/recreational park that incorporates an old Mormon fort of the 1870's that was part of Brigham City, one of the first Mormon towns to colonize the Little Colorado River Valley. Other nearby historic places include the 1870's town site of Sunset and its cemetery.

The Hopi Mesas, about 60 mi. north of Winslow, are the location of numerous late prehistoric and early historic Hopi ruins that were inhabited, according to legend, by clans from the Homolovi ruins and other areas that contributed to the Hopi population. Foremost among these is Awatovi, a very famous pueblo partly excavated in the 1930's. One reason for its importance is that most of our knowledge about the 17th Century Spanish era of Hopi history comes from archeological work done at this site. Payupki, another ruin, was the 18th Century home of immigrants to Hopi from the Rio Grande. Both ruins are being considered by the Tribe for stabilization and development to promote tourism and to explain their heritage to the public. Development of Payupki would be associated with

an expansion of the existing Hopi Culture Center and Museum, which is only about a mile away.

With all these archeological and cultural heritage projects being planned within 90 miles of each other, the potential for coordination on a regional basis is excellent, particularly since a common focus of all involves the Hopi people. The Governor's working group is committed to inter-agency cooperation and coordination of this regional concept. One of the possibilities being discussed is a major inter-agency visitor center in Winslow to focus and coordinate tourism and recreation in the area.



THE INTERPRETIVE CONCEPT

Introduction

Themes for Interpretation

Archeological Techniques
The Nuvakwewtaqa Archeological District
Hopi Perceptions and Relationship of Nuvakwewtaqa

The Visitor

Tasaf Yebitchai Kachina, the Navajo Talking God Kachina, has a corn plant painted on his face. Hundreds of acres around Nuvakwewtaqa were probably used to grow corn and the Navajo are neighbors to the Hopi today.

INTRODUCTION

The impressive archeological resources of the Nuvakwewtaqa Archeological District offer a unique recreational experience by interpreting prehistoric life and archeological techniques. This new concept of site interpretation would change the "look but don't touch" concept presently in use at most historic sites to one that involves the visitor as an active participant in the Participatory Archeology and Living Archeology programs.

It is increasingly evident that a public demand exists for such development. For example, the National Park Service has noted that increases in visitor attendance have been 27 percent higher at archaeologically related monuments than at other types of national monuments. The growth of museum attendance figures and local archaeological societies has increased even more.

The Chavez Pass concept is an approach to archaeology and recreation that has never been attempted and fulfills a public need that is not met anywhere else in the nation. It promotes research and cooperation between archeologists, Native Americans, federal agencies, state government, local communities and the public by providing an opportunity to discover past life styles and culturally different life styles through a unique recreational experience. The underlying philosophy of this concept is underscored by the conclusion made by a study of Arizona's recreation needs:

> "Outdoor recreation is to serve the human needs for the physical, mental, and social well - being through the diversity of the activities and preservation and enhancement of the natural and cultural environments that are the setting for these activities (Arizona Outdoor Recreation Coordinating Commission 1978:69)."

The opportunities for interpretation of Nuvakwewtaqa are vast, indeed, and therefore require careful thought in determining the early phases of development and the overall scope of the intepretive program. Interpretation Interpretation of this unique site becomes very complex and requires us to reach beyond the normal methods and

techniques offered by Grater (1976) and Tilden (1978). It includes all the normal interpretive skills and techniques but adds other dimensions as well.

1. Our concept goes beyond Tilden's concept that we should open minds but not overload them (Tilden 1978:xiii) because we offer numerous avenues for the visitor who wishes to step beyond mere provocation to explore, at various levels of understanding, and with various degrees of involvement.

2. We add the "do" technique that goes beyond simply observing actors pretending to live as early settlers. It allows the users themselves to participate, not only to act, as archeologists and to experience real aspects of prehistoric life.

3. It provides educational and cultural experiences for Native Americans by providing an opportunity to teach Hopi youth about their history and cultural "Roots".

4. It provides an educational outdoor laboratory for the public to do meaningful archeological research while aiding in the development of a unique recreational-archeological site.

THEMES FOR INTERPRETATION

Three major themes will be presented to the public:

1. Archeological Techniques

This will cover all aspects of the profession of archeology, beginning with how sites are recognized, how field survey data is used to formulate broad research questions and how these are tested through additional surveys and excavations. Emphasis will be placed on excavation techniques, stressing the planning and problem formulation that

precedes digging. Laboratory analysis of artifacts and synthesis of both field and laboratory data into archeological interpretations will also be performed.

Through the Participatory Archeology program, visitors will come to realize that excavation is not a simple matter of digging in ruins to find pots, bones and exotic artifacts - it is a carefully thought-out, detailed activity that involves hard work. Once artifacts are found in the field, they must be carefully handled, cleaned and stored so they are available for public display, enjoyment and study by others in the future.

Pot Hunting: A sub-theme will involve the contrast between pot hunting and professional archeology. By working with archeologists and learning proper techniques, participants will learn archeological values, a respect for the past and the need to preserve archeological sites from indiscriminant digging by pot hunters. This message is especially important for the public to understand. Pot hunting, illegal digging in ruins, has increased drastically in recent years. This has been stimulated by the rapidly escalating value of Southwestern Indian artifacts on the illicit market and a demand for the kinds of prehistoric pottery found at Nuvakwewtaqa and other sites of its time period.

Destruction of cultural resources is a major problem throughout the world and is particularly acute in the Southwest, where the high visibility of archeological sites and living Indian groups has led to a long tradition of pot hunting. This has been accompanied by a lack of understanding and respect for the American Indian, whose ancestral remains form the basis of most American archeology. In the last five years, northern Arizona has witnessed the virtual destruction of one of the Homolovi ruins and the Chevelon Ruin by pot hunters using backhoes and bulldozers. Continued destruction of this sort cannot be tolerated (Fig. 12 and 13).

Although most of the damage done to archeological sites is caused by commercial pot hunters, considerable damage is done by the

general public who dig in ruins out of curiosity, to collect artifacts or from a genuine desire to learn about the past. These misguided and destructive habits result from a poor understanding of archeological techniques and a mis-understanding of what archeology is all about. The Participatory Archeology Program will be designed to change this situation by fostering an understanding of the goals and values of archeology. By getting this message across to the general public, the Chavez Pass concept will help ensure that there will be a future for the past.

2. The Nuvakwewtaqa Archeological District

The archeological remains in the Nuvakwewtaqa District are particularly varied and abundant and form an excellent opportunity to interpret a vast number of archeological concepts. The overall orientation of interpretive activities for this theme will be to explain the accomplishments of the past in a manner that emphasizes people and concepts, rather than artifactual remains. The goal is to present ideas, rather than things, and to show the unity of the present with the past by demonstrating that many of the problems faced by prehistoric man are the same as those we face today. This will be accomplished through the interpretation of several sub-themes:

Trade: Nuvakwewtaqa is believed to have been an extremely important trading center during the 13th-15th centuries. Trade was an important activity that was responsible for many changes to many different cultures. The rising importance of Nuvakwewtaqa was likely a direct response to the development of trading systems and exchange networks. This also had a strong effect on the organizational structure of the people.

Population Concentration and Abandonment: A current issue in anthropology is the rise and fall of societies. Various theories have been proposed to explain the processes by which people moved into larger and larger sites through time, only to abandon them in the 15th century. Major population movements occurred across the entire Southwest at this time and whole regions were abandoned. This is a topic of broad interest that is particularly appropriate today, when people are concerned

traditions were coming together to form the beginnings of Hopi culture. Various ceremonies and traditions still practiced by the Hopi likely began at these ruins. Because of these strong cultural ties, Hopi perceive the ruins in a different manner than archeologists and the general non-Indian public. Rather than to follow the usual approach of archeological site interpretation, which is produced by and oriented to a non-Indian public, we intend to have much of the interpretation directed to Hopi concepts of the site. This will provide a unique perspective not found at other developed archeological sites and will give non-Indian visitors a glimpse into the perceptions and feelings of another culture. Hopi people will help develop this aspect of interpretation to ensure it is done with dignity and sensitivity. We wish to provide visitors with a sense of the values of another group and to show them that these value systems, although different from theirs, are just as important and worthy of respect as their own.

Many of the social institutions archeologists believe were operating in the ruins will be interpreted through comparisons with similar institutions in Hopi culture, such as clans, societies, religious concepts and village political organization. Modern aspects of Hopi life will also be presented to further instill in the visitor a desire to travel to the Hopi Mesas to learn more about Hopi life.

THE VISITOR

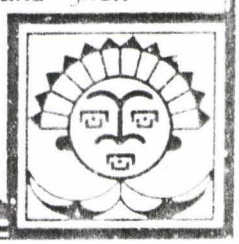
The Chavez Pass concept provides opportunities for a wide variety of interpretation and recreation experiences for an equally wide variety of users. However, it is anticipated that visitors to Nuvakwewtaqa will be moderately to well educated with a desire to search out relationships between prehistoric and modern times. They will be adventuresome to the extent of wanting to discover and enjoy new experiences, even if it limits their comfort. Users will vary in the degree to which they need to satisfy their curiosity.

Day use visitors will stop and spend one to six hours at Nuvakwewtaqa discovering prehistoric life, archeology and Hopi culture. They will be attracted to the site because of publicity about the development or from having heard of it from their friends. People living within a few hours drive of the area will make the visit to Nuvakwewtaqa the sole purpose of their trip. Their primary reason for visiting will be to simply see what is there and what recreational opportunities exist. People living at greater distances will come to Nuvakwewtaqa as a side trip from a scheduled tour or vacation. They will move on to other areas after spending some time at Nuvakwewtaqa although many will be stimulated to return for a longer period of time.

Visitors in the participation programs will come for in-depth learning about the interpretive themes presented in the archeological district. They may stay for one or two weeks and may return again if they desire. Of these, the Living Archeology Program participants will be the most adventursome users. They will be dedicated to expeciencing life as prehistoric people did, with their hardships, limitations and successes.

Initially, users will originate from Arizona's urban communities and will probably come from academic backgrounds. They will consist of people who would be enjoying nature and the outdoors in other ways if they were not participating in the programs available at Nuvakwewtaqa. As the development grows and word of the unique recreational area spreads, more visitors will come from surrounding states. Eventually, foreign visitors will also participate in the interpretive programs.

Many university student groups will participate in our unique recreation experience as a part of their academic training. Not only would they receive training with the participants in basic archeological techniques, but they would also gain experience in working with the public and gain skills necessary to promote the goals of public archeology. At the present time, very few educational programs provide real experience for archeology students to work with the public.



With the increased success of the Nuvakwewtaqa public participation and involvement programs, we expect the development to become a model for public archeology that will be of interest to universities throughout the nation.

Not far behind the student groups will be retired people and amateur archeologists. Based on the present excavation activities at the site we expect these groups will be involved in the Participatory Archeology Program to a greater degree than they will in the Living Archeology Program.

Use will be heavily oriented to the summer vacation season with moderately high use in spring and fall. Day visitation will predominate with increasing demands for participation in the week-long programs. The least used option will be overnight camping along hiking trails. Later activities that might be added to the program could include horseback trails and tours.

THE PROPOSED INTERPRETIVE PROGRAM

Visitor Programs

The Day-Use Program
The Week-Long Program
The Two-Week Long Program
Children's Program
Hopi Program

Interpretive Facilities

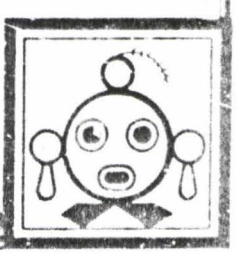
The Visitor Center
Laboratory and Storage Area
Amphitheater
Wayside Exhibits and Trails

Other Interpretive Services

Signs, Trail Guides and Tape Programs
Publications Available for the Visitor
On-Site and Off-Site Personal Services
Other Facilities

Planning the Development

Koyemsi, the Mud Head, is a clown who makes fun of people and institutions. His deformity is a reminder to the people of what may happen when proper rules are not followed.



VISITOR PROGRAMS

Although a wide variety of publics will likely be attracted to the Nuvakwewtaqa recreational facility, the interpretive program will be designed to reach four basic groups groups. Interpretation and recreational opportunities will be designed with these groups in mind.

The Day-Use Program

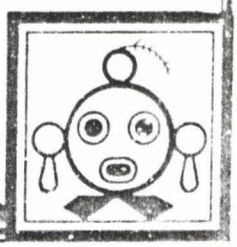
Interpretation available to day-use visitors will consist of signs, trail guides, displays in the visitor center and scheduled daily tours during the summer months. The depth of interpretation will be enough to transmit basic knowledge and to pique visitors' curiosity to the point where they will want to return for a more extended stay.

Facilities for the day user will consist of a parking lot, perhaps a shuttle service, a picnic area, a visitor center and a series of short hiking trails in the core area of the site (Fig. 15).

The Week-Long Program

This type of use will be by individuals, families and organized groups who have made reservations and paid a non-refundable fee, perhaps $10.00 per person per day, for the Participatory Archeology or Living Archeology Programs. Camping facilities will be provided for them but they must furnish their own food. Activities for these people will be carefully structured to eliminate boredom and to provide fun-filled learning situations. Organized programs will be planned for about four hours a day. People may spend the rest of the day doing whatever they wish, although optional programs will be available to occupy the remaining time

These activities entail the full range of interpretive opportunities, although participants are limited to a basic set of learning activities for the scheduled part of the program.

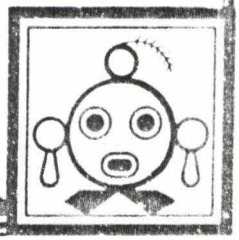


Upon completion of this week, they will have basic knowledge of the skills and activities contained in the Participatory or Living Archeology Programs. It is anticipated that many visitors will register for the two week long programs to expand their awareness and abilities obtained in these basic programs.

People will be divided into groups of five to ten people per instructor/ interpreter (Fig. 14). In the Participatory Archeology Program, these instructors will be professional archeologists and graduate students and in the Living Archeology Program they will be Hopi Indians. Interpreters at other parts of the development will also be Hopi. By having Hopi people serve as interpreters, Hopi perceptions of the archeological district will be presented with more authenticity and authority than if non-Indians were the interpreters. Interpreters in both programs will be assigned to a single group for the week. This will enhance the learning situation by allowing greater personal interaction between visitors and the interpreters.

All participants will be taken on guided tours around the main site area to introduce them to the site, recreational opportunities and to familiarize visitors with the contents of both programs. Special programs during the day as well as campfire talks in the evenings will be available for all participants.

Unlike day users, who will leave the site before nightfall, participants will remain in the area for the duration of their stay. People in the Living Archeology Program will live in pueblo rooms that have previously been excavated and restored by the Participatory Archeology Program. Visitors in the Participatory Archeology Program will stay in campgrounds provided for them and special campgrounds will be available for organized groups. Besides the short trails around the main site area, longer trails with over-night camping opportunities will be established for the free-time hours of participants in both programs.



The Two-Week Long Program

Two-week long programs will be available for those who have participated in a week-long program. Although the range of activities will be the same, visitors will have greater option to choose their activities in these longer programs and will receive more detailed, in-depth learning than is possible in the weeklong programs. For example, in the Participatory Archeology Program, weekly participants will be exposed to survey, excavation and laboratory work. In the bi-weekly program, they could specialize in one of these activities for an entire week.

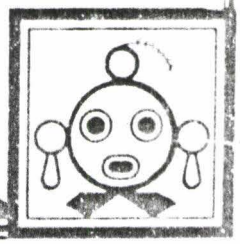
Children's Program

Within the day-use, weekly and two-week long programs, special activities will be provided for children ages 8-13. These activities will cover the same themes and topics as the main programs, but will be tailored with special programs to this younger audience. Less time will be spent on any single activity and emphasis will be placed on action learning situations.

Hopi Program

Like the children's program, this is another set of activities oriented towards this special visiting public. The program will be designed and directed by members of the Hopi Tribe to enhance Hopi cultural needs. Objectives will be provided and programs will be implemented, tested and evaluated by the Tribe. It is anticipated that this will mostly consist of day-use activities, especially tours, although the proximity of the Hopi Reservation to Nuvakwewtaqa suggests that week-end and over-night opportunities for young people may also be important. As it is possible, activities of the chilren's program and the Hopi program will be integrated to provide opportunities for cultural interaction by both groups.

As part of the Living Archeology Program, Hopi people will be demonstrating traditional crafts such as pottery, basket making



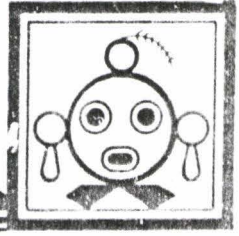
and cloth weaving. Many of the items and designs manufactured will be based on actual objects uncovered in the ruins, and the items they produce will be available for sale. This will serve several purposes in addition to simply demonstrating technology. Pot hunting will be curtailed since collectors would be able to purchase or commission exact replicas of artifacts from the demonstrators. Creating a new market of this sort would provide economic opportunities for Hopi craftspeople. Hopi culture and traditions, as well as crafts, would be enhanced by providing a new stimulus for the use of ancient designs and ancient technology, much of which has already been lost to the modern Hopi.

INTERPRETIVE FACILITIES

The Visitor Center

This structure would serve as the beginning and end of the interpretive program. Visitors would go here first to be oriented to Nuvakwewtaqa, its history, its purpose and relationships to other areas. The interpretive program would end here with a final presentation to impress upon the visitor the relationship of prehistoric man to modern man, their similarities and contrasts in culture, the importance of living in harmony with the environment and how archeology is practiced to provide information of this kind.

We visualize a 2,000 to 5,000 square feet earth sheltered structure carefully integrated into the landscape and designed with the latest alternative technology to be energy efficient. This structure will contain offices for a director and staff, audio-visual training room, a laboratory, storage areas and the main public reception area. A Hopi receptionist in the lobby will be the first contact of the visitor. Also in the lobby will be a sales area for publications, arts and crafts. Visitors will go directly into exhibit rooms where they will be presented with visual and audio displays that cover the basic information and interpretive themes they will be exposed to in greater detail on the site itself. This presentation would include diagrams and dioramas of the site



and the archeological district through time. In addition, innovative use would be made of computer-assisted multiple merging slide presentations and exhibits that involve the visitor. As much as possible, displays will be created that bring the visitor into the exhibit, rather than separating the two by a pane of glass.

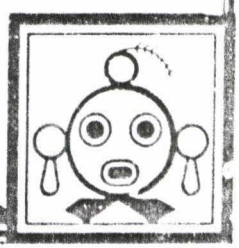
Located off the exhibit area would be an audio-visual training room which would serve several functions. At scheduled times each day it would provide shows on such themes as modern Hopi culture, religion, crafts, prehistoric trade, land use patterns, social organization and other archeological theories regarding the Nuvakwewtaqa district. These presentations would be scheduled for attendance by day users as well as participants in the weekly and two-week long programs. At other times, this area would be used for orientation of participants arriving for one or two week stays. Clases for interpreters would also be held here during the day as would classes that could not be held outdoors for participants.

Laboratory and Storage Area

The laboratory would most likely be part of the visitor center, although a separate structure may be found to be more appropriate for actual use. It would serve as a technical center, analysis area, artifact storage and training center for participants. Here, they would learn archeological field procedures, analysis techniques, interpretive techniques, archeological values and ethics. It would be a work area where archeologists and participants would clean, catalogue and analyze artifacts found during excavations and archeological surveys. A reference library would be a part of this facility and would contain comparative examples of artifacts and pottery types in addition to books and reports.

Amphitheater

An area in the ruins, such as the ball court or community room, would be excavated, stabilized and developed for use as an



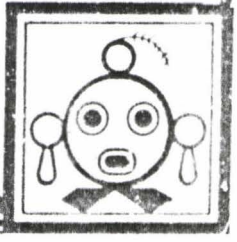
amphitheater. Group meetings, talks, demonstrations and activities will be performed here for day and night programs, thus perpetuating the original prehistoric communal use of these features. Programs in this amphitheater will be scheduled to coincide and enhance daily and weekly activities. These activities would center on the interpretive themes and sub-themes as well as other topics of interest.

Trails and Wayside Exhibits

Wayside exhibits will be combined with various self guided trails within the area. One such trail (Fig. 15) would be about three miles long and would take about two hours to travel. It would leave the visitor center, circle the three pueblos and return. Interpretive sites along the way would include the unusual and unique features at the site including the prehistoric stairway to a spring below the site, a possible smelter area, the community room, water storage reservoirs, kivas and the ball court. Interpretive signing of these features would describe their individual importance as well as how they relate to the main interpretive themes.

For example, the ball court and community room are rare features only found at sites of regional importance; the possible smelter (Fig. 16) suggests the inhabitants practiced metallurgy, although it is generally accepted that this knowledge did not exist among the prehistoric Indians of the Southwest; and a large petroglyph locality (Fig. 17, 18, 19) suggests a community "bill board". However, besides these interpretations, all these features also relate to the theme of trade and contact with higher cultures in Mexico as well as to the sub-themes of community organization and religion. Land-use practices and knowledge of hydraulics could be explained at the reservoirs, ditches and terraced fields (Fig. 20) occurring at various locations along the trail.

Other trails of various lengths would branch off this main trail. Each would be described regarding what will be experienced, the length of the trail, time to negotiate it and its difficulty.



amphitheater. Group meetings, talks, demonstrations and activities will be performed here for day and night programs, thus perpetuating the original prehistoric communal use of these features. Programs in this amphitheater will be scheduled to coincide and enhance daily and weekly activities. These activities would center on the interpretive themes and sub-themes as well as other topics of interest.

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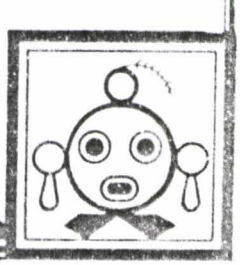


One such branch trail would lead to the top of Chavez Mountain, overlooking Nuvakwewtaqa. This would be approximately two miles in length and would pass agricultural sites, stabilized pit houses and viewpoints to the four directions. Interpretive signs at these viewpoints would describe land uses, trade areas, travel routes and other cultures and landmarks in those directions.

Other side trails would lead to petroglyph areas, astronomy viewing areas, food processing areas, other agricultural sites and other major ruins. Many of these side trails would be oriented to a particular topic and would be self-guided. Topics for these trails would include agriculture, community organization, archeology, pot hunting, and religion. Longer marked routes with opportunities for over-night camping would lead to the Kinnikinick Ruin and towards ruins in the Hopi Mesa, Verde Valley, Flagstaff and Zuni areas.

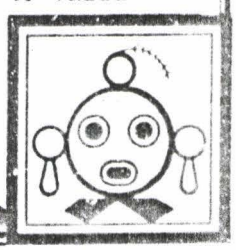
OTHER INTERPRETIVE SERVICES

Signs, Trail Guides and Tape Programs

Interpretive signing will be provided on all trails and stopping points designed for self-guided tours. Trail guide brochures and portable cassette tape recorders would be provided visitors to the archeological district to orient them and to provide interpretation for various sites and areas. Similar guides and tape recordings would be developed for each of the topical self-guided tours.

Publications Available for the Visitor

A major concern of the development will be to furnish the public with information about archeological work at the site in a timely manner. A valid criticism leveled at archeologists is that their work is often unreported, or reported in technical journals that are only read by specialists. Since the American public pays for most archeo-



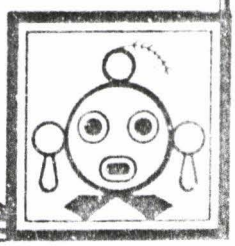
logical work done in this country, either through tax supported state and federal programs or as increased costs for products and utilities, it is only proper that they receive tangible benefits for this support. Archeologists, institutions and government agencies have become more aware of this and in the last ten years there has been a realization that archeology should be more public oriented.

To facilitate this objective, special attention will be made to producing not only technical reports on the archeology of Nuvakwewtaqa, but other publications prepared specifically for the general public. Minimally, these would consist of trail guides and lengthier brochures that would explain the topics of the self-guided trails, such as petroglyphs and prehistoric farming practices. Professional level publications would also be prepared on these topics. In this way, visitors who become interested in a topic by first learning about it in a brochure or by trail-side signing, would be able to learn more by purchasing a publication that deals with the topic in a more detailed manner.

Trail guides, many brochures and portable tape recordings will be bilingual, in both Hopi and English, to enhance the Hopi interpretive theme. Figure 21 is an example of how such a publication would appear. Other language versions, such as Navajo, Zuni, German, Spanish and Japanese would be produced as the need arises.

Lengthier reports, both technical as well as popular, will be written each year to summarize the work and conclusions of that year's activities. They will be provided to each person who assisted in the work of the Participatory Archeology Program and would also be sold at the visitor center. Popular reports will have more photographs, illustrations and speculations than the technical reports so they will be more appealing to the general public.

One of the first publications prepared would describe the pottery of the site. A large number of bowls and jars were excavated



Pu' yaw i' tiyo kivay ep kivasngyamuy amumi pangqawu, "Itam as yaapiy naalos taalat ephaqam hiituy akw tatapkiqwyani."

"Ta'ay " yaw aw kitota. Pay yaw aw su'unangwtatve. "Hiituy itamyani?" yaw aw kitota

"Pay nu' Angaktsinmuy wuuwantay," yaw pam amumi kita.

Paasat pu' yaw oovi puma naalos taalat aqw kwangwtotoya. Pu' yaw antsa aqw pitu, nalostalat aqwa'. Qa hak yaw navotiy'ta puma okininiqw. Pay yaw oovi su'awtapkiwtaqw, yaw kivangahaqaqw yaw hiitu hingqaw-wisa. Pu' yaw kur pay sinom nanaptaqe, yaw kiisonmi yuyutya pangqawkyaakyangw, "Angqw katsinamya," kitikyaakyangw.

Pu' yaw oovi puma kiisonmi okiique pu' pep tiiva. Noq yaw antsa maana nuutuma. Pu' yaw oovi puma pep tiivaqe yukuyaqw, pu' yaw i'tiyo amumi nakwsu. Paas yaw kur amungem yuwsi. Pam yaw oovi paasat pu' pumuy paho-huy ta, niikyangw siway pay yaw quee'. Paas yaw oovi pam yukut pu' yaw katsinmuy hoona. Pantit pu' yaw pam angqw ayo' siway langakna. Oovi yaw katsinam soosoyam nimmaqw, pu' yaw pam tuwat pangqw siway wikkyangw nima.

The boy spoke to his kiva partners, "Four days from today I would like to put on an evening plaza dance with kachinas."

"All right," they said. They supported him right away. "What kind should we impersonate?" they asked.

"Well, I had Longhair Kachinas in mind," he replied.

Now they began looking forward to the fourth day. Finally the day came. No one suspected their appearance. It was full evening when the kachinas emerged from the kiva with their peculiar calls. The people heard them and hurried to the plaza. "The kachinas are coming!" they shouted.

When the dancers reached the plaza, they began to dance. And the girl actually participated. When the kachina were through with their dancing, the boy went up to them. He had prepared everything most meticulously. He distributed the prayer feathers among them, but did not give one to his sister. When he had done all this very carefully, he sent the kachinas off. Then he pulled his sister aside. And so, while all the kachinas were going home, he in turn led his sister home.

Figure 21. Example of Hopi and English bilingual text. (Malotki 1978: 88-89).

excavated from Nuvakwewetaqa in 1896 and have been stored at the Smithsonian Institution since that time (Fig. 9, 10). This collection was photographed and studied in 1979, providing a wealth of data and illustrative material that can be used to explain various prehistoric designs, influences from other groups, cultural and religious symbolism and other information archeologists obtain from ceramics. Due to the beauty of many of these prehistoric vessels, this publication would also appeal to artists, art historians and collectors of pottery as well as to archeologists and visitors to the site.

On-Site and Off-Site Personal Services

Conducted walks led by Hopi interpreters would be available to users on a scheduled basis. They would include tours over the trails as well as special topic walks that are not restricted to the trails. Besides interpreting purely archeological matters, they will emphasize Hopi perceptions of the site as well as various aspects of Hopi culture, religion, social development and community structure. These tours will provide insights into Native American culture and tribal life today and will provide day-use Anglo families an opportunity to meet and converse with Hopi people.

On peak use days, tours would be offered each hour. Guided tours that would last for two or three days would be available upon request and advance reservation. Utilizing the longer trail systems, these tours would explore other sites in the area and guides would discuss relationship of those sites to Nuvakwewtaqa. Interpretation will also relate to man's multiple uses of the land throughout time. Other tours of one or more days duration would go to the Hopi Mesas and other archeological sites in the region.

Special tours would be prepared for Hopi people as well as children to better provide interpretation and recreation activities for these unique audiences. Hopi interpreters will also be stationed throughout the area to demonstrate crafts, farming techniques and to answer questions from visitors on self-guided tours. Other interpreters would be

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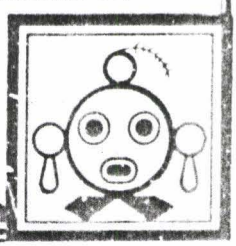

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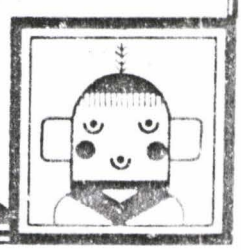
stationed in more remote areas along the trails to demonstrate outlying community activities as they relate to the major sites in the archeological district.

Other Facilities

As the development grows, it will probably be necessary to provide a small store for staple products, such as soap, toothpaste and food. This facility will be located outside the main interpreted area, near the campgrounds. At this time it may also become desirable to restrict vehicular traffic in the area by instituting a shuttle system between campgrounds and the main interpretation zone.

PLANNING THE DEVELOPMENT

A development of the sort envisioned in this concept will require considerably more planning than has been presented in this prospectus before it can become a reality. Because of its size, complexity and unique character, the project will need to be developed in various stages. It is anticipated that at least ten years will be needed to develop all aspects of the plan; however, a workable facility could be prepared in three years. Basic facilities, such as campgrounds, visitor center and staff housing would need to be constructed and minimal interpretive staff could be employed at this time. Within two more years, additional rooms could be interpreted and others stabilized for live-in purposes. Additional staff for the Living Archeology Program would be obtained. Expansion of the programs and development of the dispersed recreation trails would continue during the next five years to meet the demands of the public.



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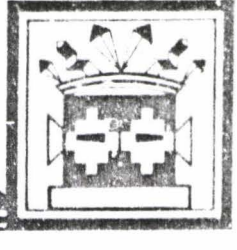

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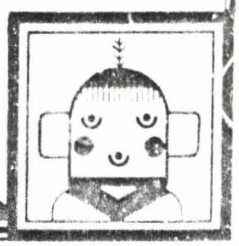

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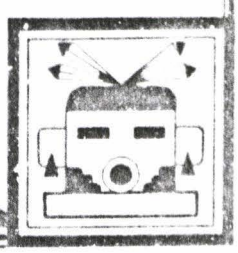

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Lerner, Shereen
1979 Final Report on the 1978 Survey of the Mogollon Rim Planning Unit Survey, Apache-Sitgreaves and Coconino National Forests. MS, Arizona State University, Department of Anthropology. Tempe.

Sample survey of region east of Chavez Pass, recording 88 sites.

Malotki, Ekkehart and Anne-Marie Malotki
1980 Hopitutuwutsi. Hopi Tales: A Bilingual Collection of Hopi Indian Stories. Northland Press. Flagstaff.

Collection of Hopi legends and stories written in both English and Hopi. Good example of bilingual publication.

McGimsey, Charles R., III
1979 Public Archaeology. Seminar Press. New York.

In-depth study of state archeological programs, state antiquities preservation laws and all federal laws and regulations pertaining to archeology.

McGregor, John C.
1943 Burial of an Early American Magician. Proceedings of the American Philosophical Society, 86(2):270-298. Philadelphia.

Description of richest burial ever unearthed in the Southwest. Hopi identified materials with the burial, indicating he was a war chief and a person of high authority. Similar materials found at Nuvakwewtaqa.

McHarg, Ian
1971 Design with Nature. Doubleday and Company, Publishers. New York.

A description of McHarg's concepts of land use planning. Discusses several planning solutions and how they were handled using his methods.

Miller, Robert J.
1979a Long Bone Pathologies in the Chavez Pass Skeletal Series. MS, Arizona State University, Department of Anthropology. Tempe.

Skeletal study found arthritis in Nuvakwewtaqa population.

1979b Chavez Pass and Biological Relationships in Prehistoric Central Arizona. PhD Dissertation Proposal. MS, Arizona State University, Department of Anthropology. Tempe.

Proposal to compare Nuvakwewtaqa population with other prehistoric skeletal population to determine biological relationships.

1980 Biological Distance and Phenetic Relationships in Prehistoric Arizona. Paper Presented at the 51st Annual Meeting of the Southwestern Anthropological Association. San Diego.

Study of prehistoric biological and cultural relationships centering on Nuvakwewtaqa population.

Morton, W. Brown, III, and Gary L. Hume
1979 The Secretary of the Interior's Standards for Historic Preservation Projects. U.S. Department of the Interior, Heritage Conservation and Recreation Service. Washington, D.C.

Standards and guidelines for acquiring, protecting, stabilizing, restoring and reconstructing historic properties. Primarily a list of do's and don't's.

National Trust for Historic Preservation
n.d. National Trust Services. National Trust for Historic Preservation. Washington, D.C.

Listing of support services available to individuals, groups and agencies. Includes advice, education, financial assistance, tours and support services offered by the National Trust.

1975 Selected Papers. Conference on Conserving the Historic and Cultural Landscape, Denver, Colorado. The Preservation Press. Washington, D.C.

Series of papers dealing with planning, economics and criteria for considering open space and landscape factors on historic preservation projects.

New Mexico Parks and Recreation Commission
1974 New Mexico State Trails Handbook. New Mexico Parks and Recreation Commission. Santa Fe.

A guidebook for designing, constructing and signing trails for specific purposes and in special situations. Provides cost estimates for trail construction.

New Mexico State Planning Office
1971 Outdoor Recreation: A Comprehensive Plan for New Mexico. New Mexico State Planning Office. Santa Fe.

Assessment, evaluation and projection of recreation opportunities and needs in New Mexico. Characterizes state resources, populations and relationship of state, federal, private and municipal sectors in providing recreation. Presents state-wide recreational goals and objectives for future implementation.

1973 The Historic Preservation Program for New Mexico. New Mexico State Planning Office. Santa Fe.

Vol. I describes a state program for the preservation of prehistoric and historic resources. Analyzes existing legislation, need for additional legislation, funding sources and other aspects of historic preservation.

Vol. II is an inventory with photographs of significant prehistoric and historic sites in New Mexico.

1974 Lincoln, New Mexico: A Plan for Preservation and Growth. New Mexico State Planning Office. Santa Fe.

Analyzes the historical and natural resource base of Lincoln and its relationship to future tourism and town growth. Attention is paid to the problem of encouraging growth while preserving the best of the past. Provides a guide for restoration and maintenance of this historic New Mexico town.

Papson, Richard L.
1971 Major Interpretation of the American Past. Meredith Corp. New York.

Description of the better interpretive efforts of past years.

Peterson, Gale E. and John T. Schlebicker
1972 Living Historical Farms Handbook. Smithsonian Institution Press, Washington, D.C.

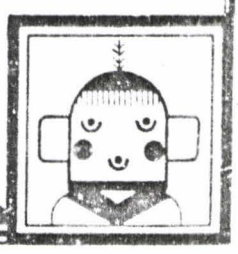
Description of the living historic farms program, detailing methods and variations of site interpretation.

Peterson, A. Max
1980 Statement of A. Max Peterson, Chief of the U.S. Forest Service, before the Subcommittee on National Parks and Insular Affairs of the Committee on Interior and Insular Affairs, United States House of Representatives, Concerning the Management and Protection of Natural and Cultural Resources on National Forest System Lands. Washington, D.C.

Statement outlining present policies and activities. Discusses plans for enhancement of cultural resources and specifically mentions Chavez Pass concept as one of these activities.

Pilles, Peter J., Jr.
1977 An Evaluation of the Proposed Arizona State University Chavez Pass Project, Coconino National Forest, Arizona. MS, Coconino National Forest Supervisor's Office. Flagstaff.

Evaluates impact of excavation project on Nuvakwewtaqa ruins.



1979 Sunset Crater and the Sinagua: A New Interpretation. In Volcanic Activity and Human Ecology, edited by Payson D. Sheets and Donald K. Grayson. pp. 459-485. Academic Press. New York.

Presents new concepts of Sinagua culture history and impacts of other groups on Sinagua developments.

Plog, Fred
1979 Prehistory: Western Anasazi. In Handbook of North American Indians, Vol. 9, Alfonso Ortiz, editor. pp. 108-130. Smithsonian Institution, U.S. Government Printing Office. Washington, D.C.

Discusses prehistory of Western Pueblo area. Specifically discusses the Chavez Pass area, trade and abandonment.

Plog, Fred and Charles F. Merbs
1979 The Growth and Abandonment of the Chavez Pass District. Research Proposal Submitted to the National Science Foundation. Arizona State University, Department of Anthropology. Tempe.

Grant proposal for the Chavez Pass project. Research investigates population concentration, abandonment, trade and development of social organization.

Price, C. A.
1975 The Decay and Preservation of Natural Building Stone. Chemistry in Britain 11(10):350-353. Garston, Watford.

Discussion of several types of stone decay with emphasis on physical and chemical processes involved. Reviews various treatments to arrest stone decay.

Reed, Alan D., Judith A. Hallasi, Adrian S. White and David A. Breternitz.
1979 The Archaeology and Stabilization of the Dominguez and Escalante Ruins. Bureau of Land Management Cultural Resource Series No. 7. Colorado State Office. Denver.

Description of excavation and stabilization techniques of two pueblo ruins in southwestern Colorado. Contains considerable archeological information about the ruins as well as the methods used to record, determine and perform necessary stabilization.

Reed, Erik K.
1950 Eastern-Central Arizona Archaeology in Relation to the Western Pueblos. Southwestern Journal of Anthropology, 6(2): 120-138.

Discusses the development and characteristics of the Western Pueblo. Mentions Chavez Pass as part of these developments.

Reyman, Jonathon E.
1978 Pochteca Burials at Anasazi Sites? In Across the Chichimec Sea: Papers in Honor of Carrol L. Riley and Basil C. Hendrick. pp. 242-259. Southern Illinois University Press. Carbondale.

Discusses possible Mexican trader burials in Southwest sites and suggests the magician's burial at Ridge Ruin to be one. Artifacts supposedly identifying these intrusive Mexicans are listed. Similar artifacts occur at Nuvakwewtaqa.

Richert, Roland, and Gordon Vivian
1974 Ruins Stabilization in the Southwestern United States. U.S. National Park Service. U.S. Government Printing Office. Washington, D.C.

A comprehensive pictorial account of stabilization projects. Includes discussion of problems, materials, techniques, and recording methods for ruins stabilization.

Scanlon, Carole T.
1974 "Interpretation: The Language of the Visitor." Preservation News. National Trust for Historic Preservation. Washington.

Discusses and gives examples of interpretive techniques for historic sites.

Schoenwetter, James
1978 The Stratigraphy of Chavez Pass Ruins. Appendix IV in Final Report on Archaeological Investigations at Chavez Pass Ruin, Coconino National Forest, Arizona: The 1978 Field Season, by Steadman Upham. MS, Arizona State University, Department of Anthropology. Tempe.

Describes and interprets stratigraphy at Nuvakwewtaqa based on 1978 excavations.

Schoenwetter, James and Ella Stewart
1978 Palynological Chronology and Antiquity Estimation at Chavez Pass Ruin. Appendix V in Final Report on Archaeological Investigations at Chavez Pass Ruin, Coconino National Forest, Arizona: The 1978 Field Season, by Steadman Upham. MS, Arizona State University, Department of Anthropology. Tempe.

Results of pollen analysis and dating.

Schreiber, John P. and William J. Breed
1971 Obsidian Localities in the San Francisco Volcanic Field, Arizona. Plateau, 43(3):115-119.

Listing of obsidian sources in northern Arizona.

Reyman, Jonathon E.
1978 Pochteca Burials at Anasazi Sites? In Across the Chichimec Sea: Papers in Honor of Carrol L. Riley and Basil C. Hendrick. pp. 242-259. Southern Illinois University Press. Carbondale.

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Schoenwetter, James
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Schoenwetter, James and Ella Stewart
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Schreiber, John P. and William J. Breed
1971 Obsidian Localities in the San Francisco Volcanic Field, Arizona. Plateau, 43(3):115-119.

Listing of obsidian sources in northern Arizona.

Sprague, Roderick
1964 Inventory of Prehistoric Southwestern Copper Bells: Additions and Corrections I. The Kiva, 30(1): 18-24.

Corrections and addition to the 1963 list. Corrects information on Nuvakwewtaqa bell.

Sprague, Roderick, and Aldo Signori
1963 Inventory of Prehistoric Copper Bells. The Kiva, 28(4):1-22.

Listing of copper bells from Mexico found in the Southwest, including one of Nuvakwewtaqa.

Tilden, Freeman
1967 Interpreting our Heritage. University of North Carolina Press. Chapel Hill.

Classic study of interpretation principles, emphasizing their application to prehistoric and historic sites and museums.

Tower, Donald B.
1945 The Use of Marine Mollusca and Their Value in Reconstructing Prehistoric Trade Routes in the American Southwest. Papers of the Excavators Club, 2(3). Cambridge.

Major report on trade routes. Mentions Chavez Pass.

Upham, Steadman
1978 Final Report on Archaeological Excavations at Chavez Pass Ruin, Coconino National Forest, Arizona: The 1978 Field Season. MS, Arizona State University, Department of Anthropology. Tempe.

Summarizes 1978 excavations, analysis and conclusions about the site.

1979 Intensification and Exchange: An Evolutionary Model of Non-Egalitarian Socio-Political Organization for the Prehistoric Plateau Southwest. Paper Presented at the 44th Annual Meeting of the Society for American Archaeology. Vancouver.

Proposes new interpretation for levels of social organization in the prehistoric Southwest. Sees trade as important factor in developing more complex organizational systems.

1980 Political Continuity and Change in the Plateau Southwest. PhD Dissertation, Arizona State University, Department of Anthropology. Tempe.

Discusses development of organizational systems in the prehistoric Southwest and how growth of trade systems related to this process. Proposes prehistoric cultures may have been more highly organized than presently believed.

White, Adrian S. and David A. Breternitz
1976 Stabilization of the Lowry Ruins. U.S. Bureau of Land Management Cultural Resources Series No. 1. Colorado State Office. Denver.

Description of re-excavation and stabilization techniques used on the Lowry Ruin in southwestern Colordo. Gives examples of recording forms, costs and materials used.

Wilson, John P.
1969 The Sinagua and Their Neighbors. PhD Dissertation, Harvard University. Cambridge.

Important synthesis and reappraisal of Sinagua archeology. Includes archeological survey of region east of Chavez Pass.

Wilson, Maggie
1980 Nuvakwewtaqa, Restoration of an Ancient Pueblo Site. Arizona Highways, September, 1980.

Discusses the Chavez Pass concept and Hopi involvement.